

REMARKS

Claims 1-5, 7-60, 64-74, and 76-82 were rejected in an Office Action dated January 19, 2010. Claim 1 has been editorially amended. Applicants respectfully request reconsideration of the present application in view of the following remarks.

Rejections under 35 USC 103(a) – over Mills in view of JP'192 and Payne

Claims 1-5, 7-14, 18, 19, 22, 24-35, 39, 40, 43, 45-47, 49-54, 56-60, 64-68, 71-74, 76-80, and 82 were rejected under 35 USC 103(a) as being obvious over Mills et al. US 5,964,465 (hereinafter "Mills") in view of JP 1999051192A (hereinafter "JP'192"), and further in view of Payne US 2,173,744 (hereinafter "Payne").

Applicants submit that a brief summary of Mills is warranted. Mills is directed to unique form-in-place gasket materials which have a "substantially quadrilateral cross-section and a significantly improved resistance to creep relaxation and dimensional distortion than other continuous, form-in-place PTFE gaskets" (see, e.g., col. 3, lines 35-40). To form the gaskets of Mills, layers of PTFE sheet material are wrapped around a mandrel to build up a multi-layered "tube" of PTFE around the mandrel (see, e.g., Figs. 5 and 6 and the related text in the specification, showing and describing alternate embodiments of either multiple pay-off rolls or a single pay-off roll to layer the PTFE sheets around the mandrel). After the layered tube is formed on the mandrel, the tube is heated such that the layers of PTFE will self-adhere, then the tube and mandrel are cooled (col. 4, lines 45-50). The PTFE tube on the mandrel is then cut spirally to produce a desired length of the form-in place gasket, as depicted in Figure 7. For example, in Example 1, it is described that a

distance equal to the desired gasket element width of 25 mm was marked off on the material along the length of the mandrel. With a length of string, a helical line was generated about the layered ePTFE to create a smooth and continuous line from one side of the gasket material to the other. Two metal rods were tied to the ends of the string and carefully the string was pulled tight, slightly indenting the ePTFE. The string and tape were removed and a second cut was made along the indented line created by the string (col 7, lines 32-42).

The resulting form-in-place gasket of Mills measured 60 m long, 25 mm wide and 3.2 mm thick. Accordingly, applicants respectfully submit that the teachings of Mills are clearly distinguishable from the claimed invention.

Applicants submit that Mills' teaching of a spiral cut along the surface of the multi-layer PTFE "tube" to obtain Mills' form-in-place gaskets of particular lengths, widths and thicknesses teaches away from, and actually fails to ever achieve, a coiled gasket having an inner periphery or inner diameter, as is presently claimed. Moreover, even assuming, arguendo, that the teachings of JP '192 were combined with the teachings of Mills to provide impermeable layers between the PTFE layers, as JP '192 was specifically relied on in the Office Action, applicants respectfully submit that the impermeable layers would be ultimately oriented in the same plane as the PTFE layers within the gasket material, not in a plane perpendicular to the plane of the PTFE layers, as would be the case with the wound coil structures of the claimed invention (see, e.g., Figs. 1a and 1b of the present invention).

With respect to the teachings of Payne, it was stated in the Office Action that "Payne teaches equivalent shapes for gaskets comprising at least two materials 12 and 14." Figure 4 is relied on for a concentric circle; Figure 3 shows a layer that can be spirally wound. Applicants respectfully submit that the mere teaching of particular shapes from non-analogous packing art is not sufficient to provide motivation to combine with the teachings of PTFE gasket materials. However, even assuming, arguendo, that the gasket length of Mills, incorporating impermeable layers, could be formed into a concentric circle or a wound coil, there would still exist the significant failing that the impermeable layers would be ultimately oriented in the same plane as the PTFE layers within the gasket material, not in a plane perpendicular to the plane of the PTFE layers, as is the case with the wound coil structures of the claimed invention.

Accordingly, applicants respectfully submit that none of Mills, JP '192 or Payne, whether taken alone or in combination, discloses, suggests or renders obvious the claimed invention. Thus, applicants respectfully request that this rejection be withdrawn.

Rejections under 35 USC 103(a) – over Mills in view of JP'192, Payne, and Mortimer

Claims 15-17 and 36-38 are rejected under 35 USC 103(a) as being unpatentable over Mills in view of JP'192 in view of Payne as applied to the claims above, and further in view of Mortimer US 4,985,296 (hereinafter "Mortimer").

Applicants repeat the arguments made above regarding the limitations of Mills, JP '192 and Payne. Mortimer is relied on for teaching improved properties of an ePTFE tape by using fillers such as those required by the claims. Applicants respectfully submit that the teachings of Mortimer directed to filler material in ePTFE fail to overcome the significant limitations in Mills, JP '192 and Payne, as described earlier herein, and accordingly, applicants respectfully submit that none of Mills, JP '192, Payne or Mortimer, whether taken alone or in combination, discloses, suggests or renders obvious the claimed invention. Thus, applicants respectfully request that this rejection be withdrawn.

Rejections under 35 USC 103(a) – over Mills in view of JP'192, Payne, and Minor

Claims 20, 21, 23, 41, 42, 44, 48, 55, 69, 70, and 81 are rejected under 35 USC 103(a) as being unpatentable over Mills in view of JP'192 in view of Payne as applied to the claims above, and further in view of Minor et al. US 6,485,809 (hereinafter "Minor").

Applicants repeat the arguments made above regarding the limitations of Mills, JP '192 and Payne. Minor is relied on for teaching impermeable layers of densified ePTFE, FEP and PFA. Applicants respectfully submit that the teaching of Minor directed to specific impermeable layer materials fail to overcome the significant limitations in Mills, JP '192 and Payne, as described earlier herein, and accordingly, applicants respectfully submit that none of Mills, JP '192, Payne or Minor, whether taken alone or in combination, discloses, suggests or renders obvious the claimed invention. Thus, applicants respectfully request that this rejection be withdrawn.

Rejections under 35 USC 103(a) – over Mills in view of Minor and Payne

Claims 1-4, 7-14, 18-27, 27-35, 39-60, 64-74, and 76-82 are rejected under 35 USC 103(a) as being unpatentable over Mills in view of Minor in view of Payne.

Applicants submit that, as stated earlier herein, Mills' teaching of a spiral cut along the surface of the multi-layer PTFE "tube" to obtain Mills' form-in-place gaskets of particular lengths, widths and thicknesses teaches away from, and actually fails to ever achieve, a coiled gasket having an inner periphery or inner diameter, as is presently claimed. It is acknowledged in the Office Action that neither Mills nor Minor specifically states that tapes are wound in a spiral form. Even assuming, arguendo, that the teachings of Minor could be combined with the teachings of Mills to provide impermeable coatings on the PTFE layers, for which Minor was specifically relied on in the Office Action, applicants respectfully submit that the impermeable coatings would be ultimately oriented in the same plane as the PTFE layers within the gasket material, not in a plane perpendicular to the plane of the PTFE layers, as would be the case with the wound coil structures of the claimed invention (see, e.g., Figures 1a and 1b of the present invention).

With respect to the teachings of Payne, it was stated in the office Action that "Payne teaches equivalent shapes for gaskets comprising at least two materials 12 and 14." Figure 4 is relied on for a concentric circle; Figure 3 shows a layer that can be spirally wound. Applicants respectfully submit that the mere teaching of particular shapes from non-analogous packing art is not sufficient to provide motivation to combine with the teachings of PTFE gasket materials. However, even assuming, arguendo, that the gasket length of Mills, incorporating impermeable coatings, could be formed into a concentric circle or a wound coil, there would still exist the significant failing that the impermeable coatings would be ultimately oriented in the same plane as the PTFE layers within the gasket material, not in a plane perpendicular to the plane of the PTFE layers, as is the case with the wound coil structures of the claimed invention.

Accordingly, applicants respectfully submit that none of Mills, Minor or Payne, whether taken alone or in combination, discloses, suggests or renders obvious the claimed invention. Thus, applicants respectfully request that this rejection be withdrawn.

Rejections under 35 USC 103(a) – over Mills in view of Minor, Payne, and Mortimer

Claims 15-17 and 36-38 are rejected under 35 USC 103(a) as being unpatentable over Mills in view of Minor in view of Payne as applied to the claims above, and further in view of Mortimer.

Applicants repeat the arguments made above regarding the limitations of Mills, Minor and Payne. Mortimer is relied on for teaching improved properties of an ePTFE tape by using fillers such as those required by the claims. Applicants respectfully submit that the teaching of Mortimer directed to filler material in ePTFE fail to overcome the significant limitations in Mills, JP '192 and Payne, as described earlier herein, and accordingly, applicants respectfully submit that none of Mills, Minor, Payne or Mortimer, whether taken alone or in combination, discloses, suggests or renders obvious the claimed invention. Thus, applicants respectfully request that this rejection be withdrawn.

Conclusion

For the foregoing reasons, the present invention as defined by the claims is neither taught nor suggested by any of the references of record. Accordingly, Applicant respectfully submits that these claims are now in form for allowance. If further questions remain, Applicant requests that the Examiner telephone Applicant's undersigned representative before issuing a further Office Action.

Respectfully submitted,



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